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ABSTRACT

The Center for Educational Policy and Management at the University of Oregon has developed a professional development term for improving teaching skills of secondary school teachers. The content of the program has been drawn from two major categories of instructional research: (1) classroom management and organizational strategies that promote and sustain student academic engaged time, and (2) research-based instructional design components that improve students' mastery of skills. The program includes four major sets of activities: a summer seminar, three followup sessions, peer observations and coaching, and an administrators' seminar. The summer seminar is 1 week long and introduces teachers to classroom management and organizational strategies, and to the principles of mastery learning. Three 1-day followup sessions are scheduled, 1 month apart, during the following quarter. The sessions provide ongoing assistance to the teachers as they apply the new strategies in the classroom. The peer observation and coaching components are introduced during these followup sessions. A brief seminar is provided for the school administrators with an overview of the instructional principles presented to the teachers and suggestions for ways they can support teachers in the implementation of the instructional strategies they are learning. An intensive staff development effort, this program has a narrow focus and is solely concerned with improving students' achievement through research-based instructional strategies. An extensive reference list is included. (MD)

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A RESEARCH-BASED TEACHER PROFESSIONAL DEVELOPMENT TERM

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A RESEARCH-BASED TEACHER PROFESSIONAL DEVELOPMENT TERM

The "Agenda for Action" outlined by Ernest Boyer in his recent analysis of the status of secondary education in America (1983) contains a number of important ideas for improving the quality of the educational experiences young people receive in our high schools today. Among the ideas contained in his action plan is one that particularly deserves the attention of staff developers. It is directly concerned with the need to strengthen the continuing education of teachers, and it offers a thoughtful and substantive recommendation for addressing this challenge.

Boyer has recommended that a two-week Teacher Professional Development Term be added to the school year. The term would be a time devoted exclusively to exploring ways to strengthen and improve the instructional program. Rather than simply providing teachers with fragmented, "one-shot" approaches to the instructional improvement process during five or six inservice days scattered throughout the year, the Professional Development Term would provide teachers with an opportunity to intensively concentrate on instructional improvement strategies, and a chance to consider a number of practical ways to integrate these plans within the instructional program.

In this article a description will be offered of an effort that has been launched by the Center for Educational Policy and Management at the University of Oregon to provide secondary school teachers with a professional development term such as that envisioned by Boyer. The program that has been designed is research-based. The content of this program has been drawn from the research on instruction, and the design of the training activities reflects research-based principles of effective staff development practices. An overview of the program's content and training processes is provided, and

a brief discussion of the implications of a Teacher Professional Development Term is presented.

FOCUS ON THE RESEARCH ON INSTRUCTION

Perhaps the most serious charges of all that have been recently leveled at the secondary schools are those which focus on the teaching and learning processes that prevail in high schools. Theodore Sizer (1984), in his study of American secondary schools, reports that the vast majority of high school students are content with satisfying minimum expectations and are actively involved in their learning only on the few occasions when the chances become likely they will fail to meet even these low expectations. He characterizes the classroom behavior of these students as passive, docile and generally withdrawn from the active pursuit of learning. Moreover, in addition to reports concerning students' lack of engagement in the learning process, recent studies have also indicated that the teaching processes employed in high schools often do not resemble the practices that have been found, through the research on teaching effectiveness, to make the greatest difference in student achievement. Writing of the status of the effective schools movement in high schools Farrar, Neufield, and Miles (1984) state,

> "Program developers report that secondary teachers use teaching and management methods that are more traditional than those used by elementary teachers--either because secondary teachers have not been exposed to the innovative practices of the last decade or because they have not found these practices useful. For example, mastery learning is a rare approach in high schools. ...To implement effective schools programs, high school teachers will have to learn new approaches, not fine-tune familiar practices." (1984)

Considering these findings and the serious concerns they raise with respect to the teaching and learning processes that are employed in high schools, the content of the Professional Development Term has been drawn from two major categories of the research on instruction. The first category is

classroom management and organizational strategies that promote and sustain student academic engaged time. The second area is research-based instructional design components which have been found to improve students' mastery of the skills or concepts they are presented in their lessons. These areas of the teacher effectiveness research have been selected not only because of the statistical usefulness of their findings, but more importantly, because of their practical significance in addressing the teaching and learning issues most critical to the instructional improvement process.

CLASSROOM MANAGEMENT AND ORGANIZATIONAL STRATEGIES

One commonality that continues to appear in the teacher effectiveness studies is evidence that good classroom management appears to make an important difference in the overall effectiveness of instruction. Throughout these studies references are made to the instructional leadership role of the teacher and the executive functions that need to be fulfilled in classrooms. The managerial and organizational strategies that have been identified through both correlational and experimental teacher effectiveness research studies have been consistently linked with gains in student achievement and increased rates of student academic engaged time (Anderson, Evertson, and Brophy 1978a, b; Berliner, Fisher, Filby, and Marilave 1978; Emmer and Evertson 1980, 1981; Fitzpatrick 1982; Grouws and Good 1978; Stallings 1980).

The classroom management and organizational strategies discussed in the staff development program are presented within two categories; namely, those strategies that have been found to help establish an effective classroom management system, and those which help to sustain the system. Briefly, the management strategies that can foster a productive learning environment include establishing clear expectations and consequences for

student academic and behavioral performance, eliminating or minimizing interruptions of instructional time, and maintaining an academic focus; whereas those strategies which serve to sustain an effective management system include monitoring student behavior, planning for smooth transitions between instructional activities, holding students accountable, and establishing a positive classroom climate.

Perhaps the key underlying factor that can account for the effectiveness of these classroom management strategies is that they are preventative measures, as opposed to reactive steps taken in response to discipline problems. Thus, one of the aims of the staff development program is to provide teachers with an opportunity to formulate some of their instructional decisions from a proactive, rather than a reactive stance. In the staff development program the teachers are presented with a series of guiding questions regarding the management and organization of their classrooms. (i.e., How will expectations for student academic and behavioral performance be communicated? How can interruptions of instructional time be eliminated or at least minimized?) These questions are posed to help them consider how the research-based managerial strategies can most appropriately be applied in their classrooms.

RESEARCH ON INSTRUCTIONAL DESIGN

In most secondary school classrooms teachers face the challenge of providing group instruction for thirty or more students who bring diverse needs and abilities with them to class each day. The challenge to design high quality group instruction which can address students' individual learning needs has been the focus of the research on mastery learning for more than a decade (Block 1974, 1979; Block and Anderson, 1975; Bloom 1968, 1976, 1981, 1984; Guskey 1984). The findings from these research and

development efforts provide a considerable amount of evidence of the impact mastery learning has on student achievement, and increasingly schools across the country are exploring ways they can provide their students with the benefits of mastery learning instruction.

The chief characteristic that distinguishes mastery learning instruction from conventional instruction is that a feedback-corrective /enrichment loop is incorporated within the mastery learning instructional design. Under conventional instruction this component is not typically present. The feedback corrective/enrichment loop includes formative testing, in which an assessment of student progress is conducted, and alternative learning opportunities. Corrective activities are assigned to those students in need of remedial assistance, as determined by their performance on the formative test, while enrichment activities are provided those who demonstrate a mastery level of performance. These enrichment activities are designed to extend students' learning by directing them to use higher thinking skills and by engaging them in related activities that enrich and enhance the meaning of the lesson.

Two recent reviews of the teacher effectiveness literature have provided further support of the importance of this instructional component. The findings of Lysakowski's and Walberg's (1982) meta-analysis of the research on instruction indicate that the effects of corrective feedback place student achievement at approximately the 83rd percentile of learning on control group distributions. In addition, among the six major instructional functions that Rosenshine (1983) has identified in his analysis of the teacher effectiveness research he has included three functions which are directly related to the feedback-corrective loop. These are,

--"Review, checking previous days' work (and reteaching if necessary)

--Initial student practice (and checking for understanding)

--Feedback and correctives (and reteaching if necessary)"

Thus, in addition to presenting research-based classroom management strategies in the staff development program, the teachers are also provided with information regarding mastery learning instructional procedures and are assisted with the process of designing units of instruction that incorporate the chief principle of mastery learning, the feedback-corrective/enrichment loop.

To summarize, the content of the program is focused on two areas of the research which have been found to make the greatest difference in student achievement. It is important to note that the research suggests that the combination of these teaching functions can make a significant difference in student achievement. Without an effective classroom management system that holds students accountable to a clear set of academic and behavioral expectations and establishes an environment conducive for learning, the most thoughtfully and carefully designed lesson will fail to realize the kind of payoffs, in terms of student learning, that it might have otherwise. Likewise, to merely increase the amount of time students spend engaged in learning is not sufficient, if we are truly interested in academic excellence. Granted, students' involvement in the learning process is a necessary condition for their academic success. However, we need to consider not only the quantity of time they are involved, but also the quality of the time students are engaged in the learning process, and how that investment of their energies will contribute to their learning achievement.

FOCUS ON THE RESEARCH ON EFFECTIVE STAFF DEVELOPMENT PRACTICES

As noted earlier, both the content and delivery system of this staff development program are research-based. The research on staff development

has clearly indicated that simply providing teachers with access to findings from the research on instruction is not sufficient to alter existing patterns of the teaching/learning process (Coladarci and Gage 1984). Thus, the design of each of the training activities included in the program has incorporated those research-based staff development practices which have been found to increase the likelihood that the instructional strategies presented in the program will actually be implemented by the teachers.

Among the findings from the research on effective staff development practices that have influenced the design of the program is the work of Joyce and Showers (1982) on the transfer of training and peer coaching. However, in addition to their work, the design of the program has also drawn upon a number of others' contributions to the research and development in this area (Bauchner and Loucks 1982; Fullan and Pomfret 1977; Gersten and Carnine 1981; Lieberman and Miles 1981; Little 1982; Loucks 1983; Sparks 1983; Stallings 1981, 1983). In many ways the findings of these researchers outline a set of staff development pactices that can essentially be described as a mastery learning model of professional development. In mastery learning, the teacher's concern extends beyond the initial preparation and presentation of the lesson to student understanding and their application of the concepts or skills that have been presented in the lesson. Likewise, the aim of these staff development practices is not only to present the research-based instructional strategies to the teachers, but also to assist them in actually using the strategies within the instructional program.

The professional development program that has been designed includes four major sets of activities. These activities include a summer seminar, three follow-up sessions, peer observations and coaching, and an administrators' seminar. Each of these activities are briefly described in the following sections.

SUMMER SEMINAR

Boyer's original proposal to establish a Teacher Professional Development Term called for the addition of a two-week block of time to the school year. Rather than allocating the entire amount of time available for the Professional Development Term during the summer, the staff development program described here includes a one-week seminar and three follow-up sessions scheduled during the first semester of the following school year. The purpose of the additional follow-up sessions is to provide ongoing support for the teachers as they begin to use the instructional strategies presented in the program. During the summer seminar the teachers are introduced to the classroom management and organizational strategies and the principles of mastery learning. A research-based rationale for these instructional strategies is presented. In particular, evidence linking the classroom management strategies and student academic engagement rates, and the effects of corrective feedback on student achievement is highlighted.

Following this introduction, the instructional design components related to the application of these strategies are discussed. For example, with regard to the application of mastery learning principles, the instructional design components that are considered include identifying and sequencing lesson objectives, dividing learning objectives into units of instruction, and determining mastery standards. In addition, the construction of formative and summative tests, and the development of corrective and enrichment learning activities are discussed.

Throughout the discussion of these instructional design components the importance of their congruence is stressed. It is emphasized that care should be taken to ensure that learning objectives are clearly and precisely stated, that the lesson is focused on mastery of these objectives, and that

the tests designed to assess student performance are directly related to these specific objectives.

Once this overview of the research on instruction has been presented, sample lessons which incorporate these instructional design components are distributed to the teachers. The sample lessons are simply offered as examples of how the research-based principles can be applied. However, it is noted that there is no one "correct" way to apply these instructional strategies, and that they are not be followed as a formula or recipe for effective instruction. Rather, considering the unique set of variables affecting the instructional process that teachers need to deal with each day in their classrooms, it is emphasized that only they can best determine the most appropriate use of these strategies. Thus, the design of the training activities throughout the staff development program is based on the premise that the most critical role teachers need to fulfill is that of a decision-maker actively involved in the instructional process, as opposed to one that calls for blind adherence to a lockstep set of procedures.

During the summer seminar the teachers are divided into teams on the basis of the subject matter and content area they have selected to begin their application of the research-based instructional principles. Each team develops lesson plans for units of instruction they will be teaching in the fall. By working together on teams, the teachers can not only complete some advance planning, but also they can receive feedback on their plans from the program director, as well as from their colleagues. Furthermore, through the team planning sessions the teachers can broaden their instructional repertoires by drawing from the strengths of the various teaching styles represented on the team.

Thus, the summer seminar does not merely provide teachers with a presentation of research-based instructional strategies. Rather, the seminar

calls for the active involvement of the participants and it enables them to capitalize on each other's teaching talents by engaging them in a collaborative effort with their colleagues throughout the program.

ONGOING PROFESSIONAL DEVELOPMENT ACTIVITIES

As stated earlier, the purpose of the three one-day follow-up sessions, each scheduled approximately one month apart during the first semester, is to provide ongoing assistance to the teachers in their initial efforts to apply the research-based instructional strategies in their classrooms. These sessions give the teachers an opportunity to share with one another both their difficulties and their successes in using these ideas. As in the team planning sessions, this exchange of ideas can help to increase the number of options the teacher can consider in the management of their classrooms and in their design of each component of the lesson.

During the first follow-up session teachers exchange additional lesson plans they have designed since the summer seminar. Also, they are given the opportunity to share their concerns related to the use of the research-based instructional strategies. By providing these opportunities in the follow-up sessions the teachers can become aware of the fact that others are also dealing with many of the same issues that may be providing some obstacles to their own implementation of the research-based strategies. Through these problem-solving sessions the teacher can consider alternative ways to effectively deal with these issues, as well as trouble-shoot areas of potential concern.

At the first follow-up session the teachers are also given training in the process of conducting peer observations. It is emphasized during the training that the purpose of the observations is to provide objective, descriptive, non-judgmental feedback to each other. One of the suggestions

offered is to focus some of the observations on student behavior. For example, maintaining student involvement while dealing with more than one group of students is a concern the teachers may have as they begin to use mastery learning. Consequently, measures of student engagement rates would be a helpful source of information for the teachers. Hence, one of the observational methods discussed in the sessions is an assessment of the amount of student time-on-task that occurs during the instructional period.

During the first semester each teacher is involved in a minimum of two observation cycles. In other words, they are observed by one of their colleagues and they serve as an observer themselves at least twice. They are given the prerogative of determining for themselves which of their colleagues participating in the program they we will request to observe their class. Time is provided for these classroom observations by arranging to have substitute teachers available.

At the second follow-up session the lesson plans the teachers prepared for the first session are returned. Suggestions for strengthening the plans are noted based upon the feedback received at the first session and individual recommendations given by the program director. The teachers are then requested to prepare at least one additional set of lesson plans to be shared at the next session. In addition, at the second follow-up session the teachers discuss their reflections concerning the peer observation and coaching process and share teaching ideas they have gained from observing each other. An additional observation cycle is then scheduled following this session.

The teachers reconvene once again, about one month later, to provide them with a forum to share their concerns and suggestions, to discuss effective instructional strategies they have observed in each other's classrooms. to exchange the lesson plans they have designed, and to consider

their future applications of the research-based principles in additional courses that they teach.

During each of the three follow-up sessions the teachers are offered additional research-based information that can reinforce their applications of the strategies presented in the summer seminar. Specifically, the research on problem-solving, student learning styles, and cooperative learning environments is discussed. Each of these areas of research is directly related to the effort to establish a productive learning environment, and to design lessons that stimulate higher thinking skills, as well as to provide alternative corrective activities that accommodate students' individual learning differences. This information is offered in the follow-up sessions to help the teachers consider the multiple dimensions of their instructional decisions, and to enhance their appreciation of the impact that those decisions can have on the learning achievement of their students.

ADMINISTRATIVE SEMINAR

In addition to the teacher-training components of the staff development program, the program includes a brief (two-hour) seminar for the school administration. Participants of the seminar include all district level and building administrators, as well as instructional supervisors (i.e., department chairmen). In the seminar an overview of the research-based instructional principles is presented and a discussion of their implications is held. These issues include the role of the student in the learning process, classroom management concerns, the pacing of instruction, and the grading of student performance. Furthermore, suggestions of ways administrators can support teachers in their efforts to implement the recommended instructional strategies are offered. The support

strategies presented at the administrators' seminar are research-based. As noted earlier in the discussion of the teachers' professional development program, the instructional strategies presented to the teachers are drawn from the research on effective instructional practices. Likewise, the support strategies that are presented to the administrators are drawn from the research on effective schools. In particular the strategies that are presented in the seminar include the administrative support functions outlined by Gersten and Carnine (1981), the instructional leadership behaviors linked to the characteristics of effective schools identified by Russell and White (1980), and the administrative behaviors related to instructional improvement noted by Loucks and her colleagues (Bauchner and Loucks 1982; Loucks and Zacchei 1983) in their studies of the dissemination process.

Among the recommendations for strengthening the instructional improvement process that are discussed in the seminar are the following:

--advocating the commitment to help students achieve a mastery level of performance

--working with teachers to overcome obstacles to implementing mastery learning strategies

--monitoring instructional performance and providing feedback

--understanding that teachers' initial efforts to implement the recommended instructional strategies may be somewhat awkward at first

--providing encouragement to teachers by recognizing their accomplishments and

--providing teachers with opportunities to share instructional ideas with each other through peer observations and collegial planning session

Besides their participation in the seminar, the administrators are also encouraged to attend the summer seminar and follow-up sessions along with the teachers from their school. The involvement of the administrators

in these various aspects of the program is intended to serve as another source of its strength. Without the school leadership's understanding of these research-based instructional principles and their active support of their implementation, the chance that these principles will actually be applied within the school's instructional program is needlessly placed in jeopardy.

PROGRAM IMPLICATIONS

What has been described above is an intensive staff development effort to help secondary schools provide high quality group instruction. Its focus is narrow. It is solely concerned with improving students' achievement by providing them with research-based instructional strategies. Furthermore, the teachers are encouraged in the program to initially apply these instructional strategies in only one course. Since their application of these research-based principles will more than likely require some extra time at first, to ask teachers to attempt to initiate these procedures in more than one course within the same year can possibly exhaust their energy at the outset, and thus diminish the effectiveness of their instruction.

This concentration of the staff development program on a limited portion of the instructional program may be somewhat disconcerting for school administrators, particulary those most deeply committed to strengthening the instructional programs of their schools. The evidence of the effectiveness of these research-based instructional principles and their impact on student learning is compelling. However, by initially placing a realistic and practical limit on the application of these principles, the chances for building a framework for ongoing professional development beyond the actual duration of the program are greatly improved. As the teachers begin to assess the learning gains of their students and see the difference in the

extent of students' participation and involvement in the learning process, they will increasingly become aware of the power of their instructional decisions, and will be encouraged to apply these research-based strategies in each of their classes. Moreover, as other teachers within the school see the results achieved by these teachers and become motivated to try these instructional strategies in their own classrooms, the initial group of teachers can provide invaluable assistance to them as they begin to consider these ideas. Essentially, the accomplishments of these teachers can help to establish a network of support and encouragement within the school for others interested in applying these research-based ideas in their classes.

The potential for these long-range outcomes of the staff development program can only be realized when all those involved have a sincere interest and genuine commitment to the program. If an overly ambitious effort is launched at the outset, the frustrations encountered as a consequence can weaken such a commitment. Thus, while the initial focus of the staff development program is narrow, the program potentially has far reaching implications for strengthening and expanding the instructional improvement process within the school.

CONCLUSION

The design of the Teacher Professional Development Term described in this article combines the strengths of two areas of research vital to the instructional improvement process; the research on instruction, and the research on staff development. Over the past decade a more solid knowledge base has been established in each of these areas of research, and they contain some meaningful findings concerning the selection of both the content and delivery systems of staff development programs. To take into consideration only one of these areas of research, to the exclusion of the

other, in the design of professional development programs runs the risk of shortchanging the effectiveness of classroom teachers and the achievement potential of their students. However, the combination of these sources of professional knowledge can empower teachers by enabling them to make an important difference in their students' learning.

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